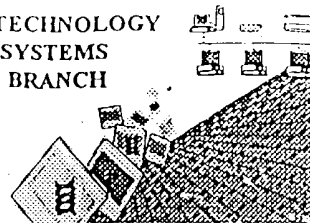


BIOTECHNOLOGY
SYSTEMS
BRANCH



RAW SEQUENCE LISTING
ERROR REPORT

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:

Application Serial Number:

Source

Date Processed by STIC:

10/656,531
JFW/O
3/22/04

THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.

PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:

- 1) INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,
- 2) TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY

FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT

MARK SPENCER, TELEPHONE: 703-308-4212; FAX: 703-308-4221

Effective 12/13/03: TELEPHONE: 571-272-2510; FAX: 571-273-0221

TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER
VERSION 4.1 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND
TRADEMARK OFFICE WEBSITE SEE BELOW FOR ADDRESS.

<http://www.uspto.gov/web/offices/pac/checker/chkr41note.htm>

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses.

1. EFS-Bio (<<http://www.uspto.gov/efc/efs/downloads/documents.htm>> , EFS Submission User Manual - ePAVE)
2. U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450
3. Hand Carry directly to (EFFECTIVE 12/01/03):
U.S. Patent and Trademark Office, Box Sequence, Customer Window, Lobby, Room 1B03, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202
4. Federal Express, United Parcel Service, or other delivery service to: U.S. Patent and Trademark Office, Box Sequence, Room 1B03-Mailroom, Crystal Plaza Two, 2011 South Clark Place, Arlington, VA 22202

Revised 10/08/03

Raw Sequence Listing Error Summary

ERROR DETECTED

SUGGESTED CORRECTION

SERIAL NUMBER:

101656,531

ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE

- 1 ☐ **Wrapped Nucleics**
Wrapped Aminos The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor after creating it. Please adjust your right margin to .3; this will prevent "wrapping."
- 2 ☐ **Invalid Line Length** The rules require that a line **not exceed 72 characters** in length. This includes white spaces.
- 3 ☐ **Misaligned Amino**
Numbering The numbering under each 5th amino acid is misaligned. Do not use tab codes between numbers; use **space characters**, instead.
- 4 ☐ **Non-ASCII** The submitted file was **not saved in ASCII(DOS) text**, as required by the Sequence Rules. Please ensure your subsequent submission is saved in ASCII text.
- 5 ☐ **Variable Length** Sequence(s) ☐ contain n's or Xaa's representing more than one residue. **Per Sequence Rules, each n or Xaa can only represent a single residue.** Please present the **maximum** number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.
- 6 ☐ **PatentIn 2.0**
"bug" A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) ☐. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. **This applies to the mandatory <220>-<223> sections for Artificial or Unknown sequences.**
- 7 ☐ **Skipped Sequences**
(OLD RULES) Sequence(s) ☐ missing. If intentional, please insert the following lines for each skipped sequence:
 (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading)
 (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown)
 This sequence is intentionally skipped

 Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to **include** the skipped sequences.
- 8 ☐ **Skipped Sequences**
(NEW RULES) Sequence(s) ☐ missing. If intentional, please insert the following lines for each skipped sequence.
 <210> sequence id number
 <400> sequence id number
 000
- 9 ☐ **Use of n's or Xaa's**
(NEW RULES) Use of n's and/or Xaa's have been detected in the Sequence Listing.
 Per 1.823 of Sequence Rules, use of <220>-<223> is **MANDATORY** if n's or Xaa's are present.
 In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.
- 10 ☒ **Invalid <213>**
Response Per 1.823 of Sequence Rules, the only valid <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is required when <213> response is Unknown or is Artificial Sequence
- 11 ☐ **Use of <220>** Sequence(s) ☐ missing the <220> "Feature" and associated numeric identifiers and responses. Use of <220> to <223> is **MANDATORY** if <213> "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in <220> to <223> section.
 (See "Federal Register," 00/01/1998, Vol. 63, No. 104, pp. 29631-32) (Sec. 1.823 of Sequence Rules)
- 12 ☐ **PatentIn 2.0**
"bug" Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.
- 13 ☐ **Misuse of n/Xaa** "n" can only represent a single nucleotide; "Xaa" can only represent a single amino acid

CRPI



IFWO

RAW SEQUENCE LISTING

DATE: 03/22/2004

PATENT APPLICATION: US/10/656,531

TIME: 07:03:47

Input Set : N:\efs\10656531\CTCHP01016-usbios-S000001.txt

Output Set: N:\CRF4\03222004\J656531.raw

3 <110> APPLICANT: Baltimore et al.
 5 <120> TITLE OF INVENTION: CHIMERIC NUCLEASES TO STIMULATE GENE TARGETING
 7 <130> FILE REFERENCE: CTCH-P01-016
 9 <140> CURRENT APPLICATION NUMBER: 10/656,531
 10 <141> CURRENT FILING DATE: 2003-09-05
 12 <150> PRIOR APPLICATION NUMBER: 60/408,454
 13 <151> PRIOR FILING DATE: 2002-09-05
 15 <150> PRIOR APPLICATION NUMBER: 60/419,341
 16 <151> PRIOR FILING DATE: 2002-10-17
 18 <150> PRIOR APPLICATION NUMBER: 60/484,788
 19 <151> PRIOR FILING DATE: 2003-07-03
 21 <160> NUMBER OF SEQ ID NOS: 52
 23 <170> SOFTWARE: PatentIn version 3.2
 25 <210> SEQ ID NO: 1
 26 <211> LENGTH: 18
 27 <212> TYPE: DNA
 28 <213> ORGANISM: primer
 30 <400> SEQUENCE: 1
 31 tagggataac agggtaat
 34 <210> SEQ ID NO: 2
 35 <211> LENGTH: 9
 36 <212> TYPE: DNA
 37 <213> ORGANISM: primer
 39 <400> SEQUENCE: 2
 40 ggggaagaa
 43 <210> SEQ ID NO: 3
 44 <211> LENGTH: 9
 45 <212> TYPE: DNA
 46 <213> ORGANISM: primer
 48 <400> SEQUENCE: 3
 49 gcgtggtcg
 52 <210> SEQ ID NO: 4
 53 <211> LENGTH: 9
 54 <212> TYPE: DNA
 55 <213> ORGANISM: primer
 57 <400> SEQUENCE: 4
 58 gatgttgct
 61 <210> SEQ ID NO: 5
 62 <211> LENGTH: 15
 63 <212> TYPE: DNA
 64 <213> ORGANISM: primer
 67 <220> FEATURE:
 68 <221> NAME/KEY: misc_feature

Does Not Comply
Corrected Diskette Needed

(pg. 1-5)

-Invalid Response
please see item #10 on
error summary sheet.

18

-Invalid Response, please
see item #10 on error summary
sheet.

9

-Invalid Response

9

-Invalid Response

9

-Invalid Response

RAW SEQUENCE LISTING

DATE: 03/22/2004

PATENT APPLICATION: US/10/656,531

TIME: 07:03:47

Input Set : N:\efs\10656531\CTCHP01016-usbios-S000001.txt

Output Set: N:\CRF4\03222004\J656531.raw

69 <222> LOCATION: (5)..(10)
 70 <223> OTHER INFORMATION: n is a, c, g, or t
 72 <400> SEQUENCE: 5

W--> 73 gatgnnnnnn ttgct

15

76 <210> SEQ ID NO: 6
 77 <211> LENGTH: 9
 78 <212> TYPE: DNA
 79 <213> ORGANISM: primer - same error
 82 <220> FEATURE:
 83 <221> NAME/KEY: misc_feature
 84 <222> LOCATION: (2)..(3)
 85 <223> OTHER INFORMATION: n is a, c, g, or t
 87 <220> FEATURE:
 88 <221> NAME/KEY: misc_feature
 89 <222> LOCATION: (5)..(6)
 90 <223> OTHER INFORMATION: n is a, c, g, or t
 92 <220> FEATURE:
 93 <221> NAME/KEY: misc_feature
 94 <222> LOCATION: (8)..(9)
 95 <223> OTHER INFORMATION: n is a, c, g, or t
 97 <400> SEQUENCE: 6

W--> 98 gnnngnnngnn

9

101 <210> SEQ ID NO: 7
 102 <211> LENGTH: 24
 103 <212> TYPE: DNA
 104 <213> ORGANISM: primer - same error
 107 <220> FEATURE:
 108 <221> NAME/KEY: misc_feature
 109 <222> LOCATION: (1)..(2)
 110 <223> OTHER INFORMATION: n is a, c, g, or t
 112 <220> FEATURE:
 113 <221> NAME/KEY: misc_feature
 114 <222> LOCATION: (4)..(5)
 115 <223> OTHER INFORMATION: n is a, c, g, or t
 117 <220> FEATURE:
 118 <221> NAME/KEY: misc_feature
 119 <222> LOCATION: (7)..(8)
 120 <223> OTHER INFORMATION: n is a, c, g, or t
 122 <220> FEATURE:
 123 <221> NAME/KEY: misc_feature
 124 <222> LOCATION: (10)..(15)
 125 <223> OTHER INFORMATION: n is a, c, g, or t
 127 <220> FEATURE:
 128 <221> NAME/KEY: misc_feature
 129 <222> LOCATION: (17)..(18)
 130 <223> OTHER INFORMATION: n is a, c, g, or t
 132 <220> FEATURE:
 133 <221> NAME/KEY: misc_feature
 134 <222> LOCATION: (20)..(21)

RAW SEQUENCE LISTING

DATE: 03/22/2004

PATENT APPLICATION: US/10/656,531

TIME: 07:03:47

Input Set : N:\efs\10656531\CTCHP01016-usbios-S000001.txt

Output Set: N:\CRF4\03222004\J656531.raw

135 <223> OTHER INFORMATION: n is a, c, g, or t
137 <220> FEATURE:
138 <221> NAME/KEY: misc_feature
139 <222> LOCATION: (23)..(24)
140 <223> OTHER INFORMATION: n is a, c, g, or t
142 <400> SEQUENCE: 7
W--> 143 nncnnnnnnn nnnnnngnngn ngnn 24
146 <210> SEQ ID NO: 8
147 <211> LENGTH: 9
148 <212> TYPE: DNA
149 <213> ORGANISM: primer
151 <400> SEQUENCE: 8
152 ggggaagaa 9
155 <210> SEQ ID NO: 9
156 <211> LENGTH: 8
157 <212> TYPE: DNA
158 <213> ORGANISM: primer
160 <400> SEQUENCE: 9
161 gcgtggcg 8
164 <210> SEQ ID NO: 10
165 <211> LENGTH: 24
166 <212> TYPE: DNA
167 <213> ORGANISM: primer
169 <400> SEQUENCE: 10
170 accatcttct tcaaggacga cgcc 24
173 <210> SEQ ID NO: 11
174 <211> LENGTH: 9
175 <212> TYPE: DNA
176 <213> ORGANISM: primer
178 <400> SEQUENCE: 11
179 gaagatggt 9
182 <210> SEQ ID NO: 12
183 <211> LENGTH: 9
184 <212> TYPE: DNA
185 <213> ORGANISM: primer
187 <400> SEQUENCE: 12
188 gacgacggc 9
191 <210> SEQ ID NO: 13
192 <211> LENGTH: 24
193 <212> TYPE: DNA
194 <213> ORGANISM: primer
196 <400> SEQUENCE: 13
197 ggcgcccacc atcgcgctgc agcc 24
200 <210> SEQ ID NO: 14
201 <211> LENGTH: 9
202 <212> TYPE: DNA
203 <213> ORGANISM: primer
205 <400> SEQUENCE: 14
206 gtgggcgcc 9

same errors

RAW SEQUENCE LISTING

DATE: 03/22/2004

PATENT APPLICATION: US/10/656,531

TIME: 07:03:47

Input Set : N:\efs\10656531\CTCHP01016-usbios-S000001.txt

Output Set: N:\CRF4\03222004\J656531.raw

209 <210> SEQ ID NO: 15
210 <211> LENGTH: 9
211 <212> TYPE: DNA
212 <213> ORGANISM: primer
214 <400> SEQUENCE: 15
215 gtcgcagcc 9
218 <210> SEQ ID NO: 16
219 <211> LENGTH: 168
220 <212> TYPE: DNA
221 <213> ORGANISM: primer
223 <400> SEQUENCE: 16
224 actagcaacc tcaaacagac accatggtgc atctgactcc tgaggagaag tctgccgtta 60
226 ctgccctgtg gggcaaggtg aacgtgacgc ttggagtgtg tctgtgttac cacgtagact 120
228 gaggactcct cttcagacgg caatgacggg acaccccggt ccacttgc 168
231 <210> SEQ ID NO: 17
232 <211> LENGTH: 9
233 <212> TYPE: DNA
234 <213> ORGANISM: primer
236 <400> SEQUENCE: 17
237 gaggttgct 9
240 <210> SEQ ID NO: 18
241 <211> LENGTH: 7
242 <212> TYPE: PRT
243 <213> ORGANISM: peptide
245 <400> SEQUENCE: 18
247 Gln Ser Ser Asp Leu Thr Arg
248 1 5
251 <210> SEQ ID NO: 19
252 <211> LENGTH: 7
253 <212> TYPE: PRT
254 <213> ORGANISM: peptide
256 <400> SEQUENCE: 19
258 Thr Ser Gly Glu Leu Val Arg
259 1 5
262 <210> SEQ ID NO: 20
263 <211> LENGTH: 7
264 <212> TYPE: PRT
265 <213> ORGANISM: peptide
267 <400> SEQUENCE: 20
269 Thr Ser Gly Ala Leu Thr Arg
270 1 5
273 <210> SEQ ID NO: 21
274 <211> LENGTH: 7
275 <212> TYPE: PRT
276 <213> ORGANISM: peptide
278 <400> SEQUENCE: 21
280 Thr Ser Gly Ser Leu Thr Arg
281 1 5
284 <210> SEQ ID NO: 22

Invalid Response, please
see item #10 on error
summary sheet.

Please see item #10 on
error summary sheet.

same errors

RAW SEQUENCE LISTING

DATE: 03/22/2004

PATENT APPLICATION: US/10/656,531

TIME: 07:03:47

Input Set : N:\efs\10656531\CTCHP01016-usbios-S000001.txt

Output Set: N:\CRF4\03222004\J656531.raw

285 <211> LENGTH: 7
286 <212> TYPE: PRT
287 <213> ORGANISM: peptide
289 <400> SEQUENCE: 22
291 Arg Ser Asp Asn Leu Thr Arg
292 1 5
295 <210> SEQ ID NO: 23
296 <211> LENGTH: 7
297 <212> TYPE: PRT
298 <213> ORGANISM: peptide
300 <400> SEQUENCE: 23
302 Arg Ser Asp Asn Leu Val Arg
303 1 5
306 <210> SEQ ID NO: 24
307 <211> LENGTH: 48
308 <212> TYPE: DNA
309 <213> ORGANISM: primer
311 <400> SEQUENCE: 24
312 agcaacctct ctagagcgtg ggcgtcgttg gagagatctc gcacccgc
315 <210> SEQ ID NO: 25
316 <211> LENGTH: 9
317 <212> TYPE: DNA
318 <213> ORGANISM: primer
320 <400> SEQUENCE: 25
321 ggcaaggtg
324 <210> SEQ ID NO: 26
325 <211> LENGTH: 7
326 <212> TYPE: PRT
327 <213> ORGANISM: peptide
329 <400> SEQUENCE: 26
331 Arg Ser Asp Ala Leu Thr Arg
332 1 5
335 <210> SEQ ID NO: 27
336 <211> LENGTH: 7
337 <212> TYPE: PRT
338 <213> ORGANISM: peptide
340 <400> SEQUENCE: 27
342 Arg Ser Asn Ser Leu Thr Arg
343 1 5
346 <210> SEQ ID NO: 28
347 <211> LENGTH: 7
348 <212> TYPE: PRT
349 <213> ORGANISM: peptide
351 <400> SEQUENCE: 28
353 Arg Ser Asp Thr Leu Ser Asn
354 1 5
357 <210> SEQ ID NO: 29
358 <211> LENGTH: 7
359 <212> TYPE: PRT

same errors

48

9

The type of errors shown exist throughout
the Sequence Listing. Please check subsequent
sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY
PATENT APPLICATION: US/10/656,531

DATE: 03/22/2004
TIME: 07:03:48

Input Set : N:\efs\10656531\CTCHP01016-usbios-S000001.txt
Output Set: N:\CRF4\03222004\J656531.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:5; N Pos: 5,6,7,8,9,10 ✓

Seq#:6; N Pos. 2,3,5,6,8,9 ✓

Seq#:7; N Pos. 1,2,4,5,7,8,10,11,12,13,14,15,17,18,20,21,23,24 ✓

VERIFICATION SUMMARY

DATE: 03/22/2004

PATENT APPLICATION: US/10/656,531

TIME: 07:03:48

Input Set : N:\efs\10656531\CTCHP01016-usbios-S000001.txt

Output Set: N:\CRF4\03222004\J656531.raw

L:73 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:5 after pos.:0

L:98 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:6 after pos.:0

L:143 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:7 after pos.:0